

**REMARKS**

Please find enclosed translations of the full references required by the examiner, which references were previously noted in applicants' PTO 1449.

The title of the invention has been changed as required by the examiner. Other informalities in the specification objected to by the examiner has been corrected.

**35 U.S.C. § 112, first paragraph**

The examiner objected to the specification under 37 CFR 1.71 because applicants' disclosure does not provide any description of coating compositions or binder for solid medicament or any other coatings comprising the polymer of claim 1. The examiner stated that it would require undue experimentation for one of ordinary skill in the art to determine how to use these polymers as claimed in claim 10. Applicants believe that the examiner has not met the burden under the enablement requirement. As stated by the court in *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971)., "it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain *why* it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement. Otherwise, there would be no need for the applicant to go to the trouble and expense of supporting his presumptively accurate disclosure." 439 F.2d at 224, 169 USPQ at 370. MPEP § 2164.04. The examiner does not go beyond simply saying that undue experimentation

is required. The proper disclosure is made in the specification, especially on page 23, lines 8-20.

The examiner objected to claim 9 under 37 CFR 1.75(c) as being in improper form. Claim 9 has been amended to overcome the examiner's objection.

Claims 1 and 4-10 were rejected under 35 U.S.C. § 112, first paragraph, because the specification, while being enabling for the disclosed embodiments of c, d, and e, does not reasonably provide enablement for components c, d, and e as broadly as claimed. Please note that applicants have canceled claims 2, 3, and 4. Amended claim 1 which incorporates components of original claims 1-4 now has components c) and d) which provides adequate enablement. Component e) is enabled because it is specified by two alternatives, polyether acrylates e1) and urethane (meth)acrylates containing alkylene oxide groups e2). Page 2, lines 20-21 and page 9, lines 28 - page 10, line 6 of the specification provides enablement for component e1) as claimed. Component e2) is a urethane (meth)acrylate containing alkylene oxide groups and its basis can be found on page 9, lines 23-24 of the specification. Claims 5 and 6 are directed to particular embodiments of component e2). Page 10, line 8 - page 18, line 32 of the specification provides enablement for component e2).

**35 U.S.C. § 112, second paragraph**

The examiner rejected claims 1-8 and 10 as indefinite under 35 U.S.C. § 112, second paragraph because a composition claim requires more than one component

and the instant claims recite only one component. The instant claims recite more than one component because the water-soluble or water-dispersible polymer claimed comprises, in copolymerized form, the components a), b), c), **and** d) as defined in claim 1.

The examiner rejected claims 5 and 6 as being indefinite because the examiner believed the claims are unduly alternative, making the subject matter of the invention unclear. Applicants ask the examiner upon what authority this rejection is made. In addition, applicants direct the examiner to MPEP § 2173.05(h) which permits alternative expressions using "or." Also, according to the MPEP some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire and that examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their preferences if others modes of expression selected by applicants satisfy the statutory requirement.

§2173.02 Claims 5 and 6 clearly set forth the possible components by defining f, g, h, l, k, l, and m.

The examiner also believed the phrase "in incorporated form" in claims 5 and 6 to be vague and unclear. Definiteness of claim language must be analyzed, not in a vacuum, but in light of: (A) The content of the particular application disclosure; (B) The teachings of the prior art; and (C) The claim interpretation that would be given by one

possessing the ordinary level of skill in the pertinent art at the time the invention was made. MPEP § 2173.02 Applicants believe the use the phrase is not indefinite in light of page 10, lines 8-11, and page 11, lines 5-7 of the specification.

Claim 7 was rejected because a narrow range or limitation fell within the broad range or limitation. Applicants have amended claim 7 to overcome the rejection.

Claim 8 was rejected for including the phrase "a hair-treatment composition, in particular in the form..." because the use of "in particular in the form" is a narrower statement of the broad limitation "a hair-treatment composition," which renders the claim indefinite. Applicants have amended claim 8 to overcome the rejection.

### **35 U.S.C. § 102(b)**

The examiner rejected claims 1-3 and 10 under 35 U.S.C. § 102(b) as being anticipated by Ribba. Applicants believe there is no anticipation. Components a) and d) of applicants' claim 1 falls within the general definition of components c) in the specification (col. 2, lines 16-24, co. 4, lines 14-44) and d) in the claims of Ribba . However, Ribba does not anticipate the **combination** of components a) **and** d). Furthermore, applicants' component a) in claim 1 is from 40 to 85% by weight. Ribba does not use a component with the same requirement. The same arguments can be made for claim 10 since it is directed to a coating composition comprising a polymer as defined in claim 1.

### **35 U.S.C. § 103(a)**

Claims 4-9 were rejected under 35 U.S.C. § 103(a) as obvious over Mita in view of Ribba. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All the claim limitations of the applicants' invention are not taught or suggested by Mita in view of Ribba. Mita refers to film-forming resins which comprise (meth)acrylamide monomers (component (a)) and (meth)acrylate and/or (meth)acrylamide monomers having tertiary amino groups (component (c)). Therefore, Mita's polymers are **cationic or cationogenic**. The present invention claims cosmetic compositions which has polymers comprising at least one  $\alpha,\beta$ -ethylenically unsaturated mono- and/or dicarboxylic acid (component b)). Therefore, the present invention's polymers are **anionic or anionogenic polymers**.

The examiner stated that Mita's polymers lack the explicit use of a mono- and/or dicarboxylic acid monomer but it would have been obvious that at least one  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid was already present in the composition as taught by Mita. The examiner's reasoning is that under the conditions applied to the polymer in col. 5, lines 3-8, some of the ester groups would be cleaved to form acrylic acid monomer units *in situ*. Applicants disagree. In col. 4, lines 67 - col. 5, line 8, Mita teaches neutralization of at least a part of the tertiary amino group of the polymer with an organic or inorganic acid to make the polymer water-soluble. Mita does not teach cleavage of ester groups nor is it like that such a cleavage would occur. Acid

hydrolysis of esters is in equilibrium with the very fast neutralization reaction.

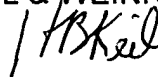
Therefore, the undesirable side reaction would not have motivated one skilled in the art to combine the references to establish a prima facie case of obviousness. Finally, neither Mita nor Ribba alone or in combination suggest the combination of components a) and d).

For the reasons expressed above, it is urged that the prior art references cited by the examiner singly or in combination fail to suggest the present invention as defined by the **amended** claims. Accordingly, a prima facie case of obviousness has not been established by the examiner, and the rejection under 35 U.S.C. § 103(a) should be withdrawn.

**A check in the amount of \$390.00 is attached to cover the required two month extension of time fee.**

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11-0345. Please credit any excess fees to such deposit account.

Respectfully submitted,  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE TITLE**

Delete the present title: "Cosmetic composition" and substitute:

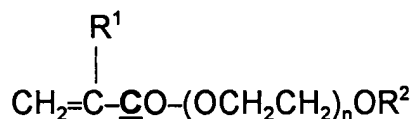
--COSMETIC COMPOSITION WITH WATER-SOLUBLE OR WATER-DISPERSIBLE  
POLYMERS--.

**IN THE SPECIFICATION**

Page 4, amend the paragraph beginning on line 1 as follows:

JP-A-01 213 221 describes a hair colorant comprising a tetrapolymer which comprises, in copolymerized form,

- a) from 30 to 70% by weight of at least one (meth)acrylic ester of the formula



$$\text{R}^1 = \text{H}, \text{CH}_3; \text{R}^2 = \text{CH}_3, \text{C}_2\text{H}_5; n = 1-10$$

- b) from 5 to 25% by weight of acrylic acid, methacrylic acid and/or itaconic acid,  
c) from 5 to 20% by weight of at least one C<sub>8</sub>-C<sub>18</sub>-alkyl ester of acrylic acid and/or methacrylic acid,  
d) from 20 to 50% by weight of at least one other vinyl monomer, chosen from n-butyl (meth)acrylate, isobutyl (meth)acrylate, cyclohexyl (meth)acrylate, vinyl acetate, vinylpyrrolidone, diaceto(meth)acrylamide, acrylonitrile or styrene,  
and which is then neutralized with a water-soluble, organic base. Polymers which have a tert-butyl ester or an N-tert-butylamide of an  $\alpha,\beta$ -ethylenically unsaturated carboxylic acid are not described. As a result of their high alkylene oxide content, these polymers form soft films and are therefore unsuitable as hair-setting compositions. In addition, their LPG compatibility is in need of improvement.

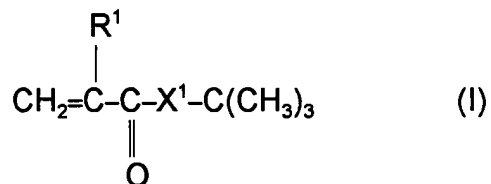
Page 29, amend the paragraph beginning on line 15 as follows:

Feed 1:	300 g	of the monomer mixture in accordance with Table 2
	100 g	of <b>[wasser] <u>water</u></b>
	1 g	of sodium lauryl sulfate
	6 g	of polyethoxysorbitan laurate (Tween®20, ICI)
	1.2 g	of ethylhexyl thioglycolate
Feed 2:	0.9 g	of sodium persulfate
	100 g	of water

#### **IN THE CLAIMS**

1. (amended) A cosmetic composition comprising at least one water-soluble or water-dispersible polymer which comprises, in copolymerized form,

- a) from 40 to 85% by weight of at least one  $\alpha,\beta$ -ethylenically unsaturated monomer of the formula I



in which

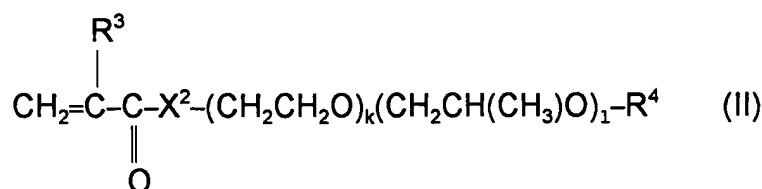
$\text{R}^1$  is hydrogen or  $\text{C}_1\text{-C}_8$ -alkyl, and

$\text{X}^1$  is O or  $\text{NR}^2$ , where  $\text{R}^2$  is hydrogen,  $\text{C}_1\text{-C}_8$ -alkyl or  $\text{C}_5\text{-C}_8$ -cycloalkyl,

- b) from 10 to 30% by weight of at least one  $\alpha,\beta$ -ethylenically unsaturated mono- and/or dicarboxylic acid,
- c) from 1 to 20% by weight of at least one compound having at least one  $\alpha,\beta$ -



ethylenically unsaturated double bond and at least 5 alkylene oxide units per molecule, chosen from polyether acrylates of the formula II



in which the order of the alkylene oxide units is arbitrary,

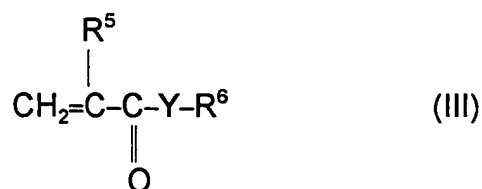
k and l independently of one another are an integer from 0 to 50, the sum k + l being at least 5,

R<sup>3</sup> is hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl, and

R<sup>4</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl,

X<sup>2</sup> is O or NR<sup>2</sup>, where R<sup>2</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkyl,

- d) from 1 to 30% by weight of at least one compound having at least one α,β-ethylenically unsaturated double bond and at least one straight-chain or branched C<sub>8</sub>-C<sub>30</sub>-alkyl or -alkylene radical per molecule, chosen from compounds of the formula III



in which

R<sup>5</sup> is hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl.

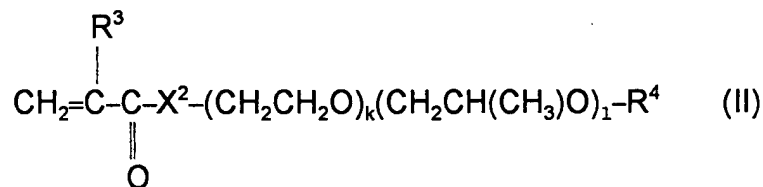
R<sup>6</sup> is a straight-chain or branched C<sub>8</sub>-C<sub>30</sub>-alkyl radical, and

Y is O or NR<sup>7</sup>, where R<sup>7</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkyl.

where the components c) and/or d) can be partially or completely replaced by a component e), where

e) is at least one compound having at least one  $\alpha,\beta$ -ethylenically unsaturated double bond, at least 5 alkylene oxide units and at least one straight-chain or branched C<sub>8</sub>-C<sub>30</sub>-alkyl or -alkylene radical per molecule, where component e) is chosen from

e1) polyether acrylates of the formula II



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in which the order of the alkylene oxide units is arbitrary.

k and l independently of one another are an integer from 0 to 50, the sum

k + l being at least 5.

R<sup>3</sup> is hydrogen or C<sub>1</sub>-C<sub>8</sub>-alkyl, and

R<sup>4</sup> is C<sub>8</sub>-C<sub>30</sub>-alkyl.

X<sup>2</sup> is O or NR<sup>2</sup>, where R<sup>2</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkyl.

e2) urethane (meth)acrylates containing alkylene oxide groups and mixtures

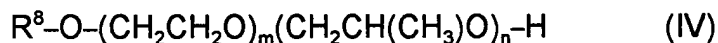
thereof

or the salts thereof.

Cancel claims 2-4.

5. (amended) A composition as claimed in claim [4]1, where component e2) comprises, in incorporated form, the following compounds: f, g and h; or f, h, i and m; or g and 1; or i, 1 and m; or f, i, 1 and m; or f, h, k and m; and optionally other compounds, where

- f) is at least one diisocyanate,
- g) is at least one compound of the formula IV



in which

the order of the alkylene oxide units is arbitrary,

$R^8$  is a straight-chain or branched  $C_8$ - $C_{30}$ -alkyl radical,

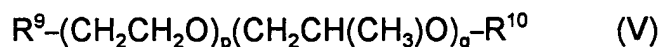
m and n independently of one another are an integer from 0 to 50, the sum  $M +$

$N$  being at least 5,

- h) is at least one  $\alpha,\beta$ -ethylenically unsaturated compound which, per molecule, additionally contains at least one group which is reactive toward isocyanate groups,
- i) is a compound chosen from monohydric alcohols, diols, amines, diamines and

aminoalcohols having at least one straight-chain or branched C<sub>8</sub>-C<sub>30</sub>-alkyl or -alkylene radical per molecule, and mixtures thereof,

- k) is at least one aliphatic, cycloaliphatic or aromatic monoisocyanate,
- l) is at least one  $\alpha,\beta$ -ethylenically unsaturated compound which additionally contains at least one isocyanate group per molecule,
- m) is at least one compound of the formula V



in which

the order of the alkylene oxide units is arbitrary,

p and q are as defined above for m and n,

R<sup>9</sup> is OH or NHR<sup>11</sup>, where R<sup>11</sup> is hydrogen, C<sub>1</sub>-C<sub>8</sub>-alkyl or C<sub>5</sub>-C<sub>8</sub>-cycloalkyl,

R<sup>10</sup> is H, CH<sub>2</sub>CH<sub>2</sub>NHR<sup>11</sup> or CH<sub>2</sub>CH(CH<sub>3</sub>)NHR<sup>11</sup>.

7. (amended) A composition as claimed in claim 1, comprising a polymer which comprises, in copolymerized form,

- [from 40 to 85% by weight, preferably] from 45 to 80% by weight, of at least one component a),
- [from 10 to 30% by weight, preferably] from 15 to 28% by weight, of at least one component b),
- [from 1 to 20% by weight, preferably] from 2 to 15% by weight, of at least one component c),

- [from 1 to 30% by weight, preferably] from 2 to 25% by weight, at least one component d),

where components c) and/or d) can be partially or completely replaced by a component e).

9. (amended) A composition as claimed in [claim 8] claim 1, comprising

- a) from 0.5 to 20% by weight of [at least one] a water-soluble or -dispersible polymer as defined in [claims] claim 1 [to 9],
- b) from 30 to 99.5% by weight, preferably from 40 to 99% by weight, of at least one solvent chosen from water, water-miscible solvents and mixtures thereof,
- c) from 0 to 70% by weight of a propellant,
- d) from 0 to 10% by weight of at least one water-soluble or -dispersible hair polymer which is different from a),
- e) from 0 to 0.3% by weight of at least one water-insoluble silicone,
- f) from 0 to 1% by weight of at least one nonionic, siloxane-containing, water-soluble or -dispersible polymer.